REMARKS

Claims 10-22 are pending in the subject application. Applicants respectfully submit that the present amendment response places the present application in condition for allowance or in better condition for purposes of appeal. Applicants respectfully request that claims 10 and 14 be amended and claims 3, 5, 6 be canceled and replaced with new claims 20-22 in order to make appropriate corrections as suggested by the Examiner in regards to the claim objections. No new matter has been added to the application by virtue of the present response. Applicants believe that the present response does **not** raise new issues requiring further search by the Examiner as the claim amendments and new claims provide appropriate corrections as suggested by the Examiner related to the claim objections.

Claim Objections

The Examiner objected to claims 5, 6, 10 and 14 because of informalities. With respect to claims 3, 5 and 6 depending on a succeeding claim 19, Applicants respectfully request that claims 3, 5 and 6 be canceled, and claims 20-22 which respectively correspond to canceled claims 3, 5 and 6 be added so that claims 20-22 depend on prior claim 19. Applicants have also made appropriate corrections as suggested by the Examiner in new claims 20-22 as well as to claims 10 and 14.

Therefore, Applicants believe that the objections to the claims have been overcome.

Claim Rejections - 35 U.S.C. 103(a)

The Examiner has rejected claims 10, 11, 14 and 16-18 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,980,513 (Novick).

Applicants respectfully submit that Novick, individually or in combination with ***In Re***

Larson, does not teach or suggest Applicants' independent claim 10 and claims dependent thereupon.

The Examiner explicitly states in the Final Office Action of June 1, 2007 on page 3, last line and page 4, first line that "... Novick does not disclose a scheduler for performing both priority rank scheduling and normal priority preemption scheduling." The Examiner states that it would have been obvious to integrate the two schedulers of Novick into a single scheduler for performing both MCR and BE scheduling "... to reduce space in a device." *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965), the court stated that the use of a one piece construction instead of several parts rigidly secured together as a single unit would be merely a matter of obvious engineering choice. Thus, Applicants believe that the Examiner is asserting that by simply combining the two schedulers of Novick to reduce space in a device results in Applicants' claimed invention.

Applicants respectfully disagree with the Examiner's assertion that by simply combining the two queue schedulers of Novick to reduce space in a device results in Applicants' claimed invention. Applicants respectfully submit that the claimed invention is beyond a mere simple combination of individual parts disclosed in Novick. As will be discussed herein below, Applicants' claimed invention shows insight that was contrary to the understandings and expectations of Novick.

Applicants' claim 10 recites ".. **a credit device** that provides at each packet cycle a value N defining a priority rank to be considered by **said queue scheduler**, **the considered priority rank** is selected based on a pre-determined value related to **all of said priority ranks** which are **associated with said queue scheduling mechanism** ..." (emphasis added).

Referring to FIG. 1 of the present application, Applicants' claimed invention relates to a **single** credit device 28 that is associated with **all** of the priority ranks P_0, P_1, P_2 and P_3 (i.e. including high and low priority ranks) which are associated with the queue scheduling mechanism 10. Applicants' claimed invention also relates to a **single** queue scheduler 20 that is

associated with **all** of the priority ranks P_0, P_1, P_2 and P_3 (i.e. including high and low priority ranks) which are associated with the queue scheduling mechanism 10. Thus, Applicants' claimed invention relates to a **single** credit device 28 and a **single** queue scheduler 20 which are **each** associated with **all** of the priority ranks P_0, P_1, P_2 and P_3, including high and low priority ranks, which are associated with the queue scheduling mechanism 10. At each packet cycle, the single credit device 28 establishes which priority rank among all of the priority ranks P_0, P_1, P_2 and P_3 to serve. In this way, a minimum service rate for any one of the priority ranks P_0, P_1, P_2 and P_3 (e.g. lowest priority) is provided by the single credit device 28 even when there are other priority ranks (e.g. highest priority) which need to be served. Applicants' claimed invention provides a queue scheduling mechanism 10 which serves the data packet queue based on **all** of the priority ranks P_0, P_1, P_2 and P_3 which are associated with the queue scheduling mechanism 10, and does <u>not</u> just serve the highest priority rank P_0 first until it is empty and then moves on to the next priority rank P_1,etc. as is disclosed by Novick. Applicants' claimed invention avoids congestion with data packets with a specific priority rank (e.g. lowest priority rank data packets) since a minimum service rate is provided by the single credit device 28 for even the lowest priority rank associated with queue scheduling mechanism 10.

Simply combining the two separate schedulers of Novick into one scheduler to reduce space of the device (i.e. to make integral) as asserted by the Examiner still does **not** result in Applicants' claimed invention as discussed herein above. Not only does Novick fail to disclose a single queue scheduler, Novick also fails to disclose, teach or suggest a **single** credit device that is associated with **all** of the priority ranks (i.e. including high and low priority ranks) which are associated with the queue scheduling mechanism. Applicants respectfully submit that Novick discloses a credit device MCR list 36 which is **not** associated with **all** of the priority ranks associated with the queue scheduling mechanism. MCR list 36 is associated only with the high priority ranks and is not associated with the low priority ranks. Regardless of whether a single queue scheduler or a plurality of queue schedulers is used by Novick, Novick discloses servicing the priority ranks from the MCR list 36 first and then, only after all of the priority ranks from the MCR list 36 have been serviced, servicing the priority ranks from the BE list 38 (see column 4, lines 5 - 51).

Combining Novick's two queue schedulers into one queue scheduler may result in a reduction in space of the device as stated by the Examiner, however, it does not result in Applicants' claimed invention since Novick's single scheduler would still have a credit device (i.e. MCR list 36) which is **not** associated with **all** of the priority ranks associated with the queue scheduling mechanism. Novick's single queue scheduler would not be presented with a priority rank which is "... selected based on a pre-determined value related to all of said priority ranks which are associated with said queue scheduling mechanism ..." as claimed by Applicants. Novick's single queue scheduler would still service the priority ranks from the MCR list 36 first and then, only after all of the priority ranks from the MCR list 36 have been serviced, service the priority ranks from the BE list 38. Novick discloses a queue scheduling mechanism which does not provide for a minimum traffic flow for the lowest priority rank data packets since the highest priority rank data packets will always be served first resulting in congestion in the data packet transmission system.

Applicants respectfully submit that it would not be obvious to combine (i.e. make integral) MCR list 36 and BE list 38 of Novick into a single credit device to reduce space of the credit device since Novick discloses allocating bandwidth among MCR and BE connections by using MCR list 36 to service high priority ranks first and then BE list 38 to service lower priority ranks only after all of the higher priority ranks have been serviced. Thus, Novick provides no disclosure, teaching or suggestion for combining MCR list 36 and BE list 38 into one credit device, nor would combining MCR list 36 and BE list 38 to reduce the space of a single credit device result in Applicants' claimed invention since a single credit device according to Novick would still only provide a priority rank selected from **some**, not all, of the priority ranks which are associated with the queue scheduling mechanism. Thus, a single credit device according to Novick would still not disclose, teach or suggest Applicants' limitation of "... the **considered priority rank** is selected based on a pre-determined value related to **all of said priority ranks** which are **associated with said queue scheduling mechanism** ..." (emphasis added). Combining MCR list 36 and BE list 38 into a single credit device, as well as combining queue schedulers 24, 34 into a single queue scheduler, according to Novick in view of *In Re Larson* does not provide a minimum service rate for a specific priority rank (e.g. lowest priority rank) associated with the queue scheduling mechanism as is claimed by Applicants.

Therefore, Applicants believe that the rejection of the claims under 35 U.S.C. 103(a) has been overcome and it is respectfully requested that the pending claims be passed to issuance in view of the amendments and remarks.

Claim Rejections - 35 U.S.C. 103(a)

The Examiner has rejected claims 12-13 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,980,513 (Novick) in view of U.S. Patent No. 6,721,273 (Lyon); claims 5, 6, 15 and 19 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,980,513 (Novick) in view of U.S. Patent No. 6,438,134 (Chow); and claim 3 as being unpatentable over U.S. Patent No. 6,980,513 (Novick) in view of U.S. Patent No. 6,438,134 (Chow) and U.S. Patent No. 6,721,273 (Lyon).

As discussed herein above, Applicants believe that Novick does not anticipate, teach or suggest independent claim 10, as previously presented. Further, Applicants believe that neither Chow nor Lyon, individually or in combination, do not remedy the deficiencies in Novick. Thus, Applicants respectfully submit that the combination of Novick with Chow and/or Lyon would not teach or suggest claims 3, 5, 6, 12, 13, 15 or 19.

Therefore, Applicants believe that the rejection of claims under 35 U.S.C. 103(a) has been overcome and it is respectfully requested that the pending claims be passed to issuance in view of the remarks.

CONCLUSION

In light of the foregoing amendments and remarks, all of the claims now presented are believed to be in condition for allowance, and Applicants respectfully request that the outstanding objections be withdrawn and this application be passed to issue at an early date.

The Examiner is urged to call the undersigned at the number listed below if, in the Examiner's opinion, such a phone conference would aid in furthering the prosecution of this application. No fees are due by virtue of the present response, however, please charge Applicants' deposit account, 09-0456, for any fee that the PTO determines is due.

Respectfully Submitted,

For: Blanc et al.,

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